

WE CLAIM:

1 1. An isolated purified peptide antigen comprising
2 all or part of the amino acid sequence of a species-specific
3 secreted blood-stage protein from *P. vivax* or fragment thereof,
4 said protein being present in detectable amounts in biological
5 samples of individuals infected with *P. vivax* malaria, said
6 antigen having the property of eliciting antibodies that recog-
7 nize said protein.

1 2. The peptide antigen of claim 1 wherein said blood
2 stage protein is PvESP-1.

1 3. The peptide antigen of claim 2, said antigen being
2 PvESP-1.

1 4. An isolated purified polypeptide comprising the
2 amino acid sequence of SEQ ID No. : 2 or immunogenic *P. vivax*
3 species-specific fragments thereof.

1 5. A DNA sequence selected from the group consisting
2 of (i) DNA which encodes all or part of the amino acid sequence
3 of SEQ ID No. : 2 said DNA encoding a peptide antigen according
4 to claim 1; and (ii) DNA hybridizing therewith under stringent
5 conditions.

1 6. The peptide antigen of claim 1 wherein said blood
2 stage protein is PvESP-2.

1 7. The peptide antigen of claim 6, said antigen being
2 PvESP-2.

1 8. Isolated and purified antibody immunochemically
2 reactive with a peptide antigen according to claim 1.

1 9. The antibody of claim 8 which is monoclonal.

1 10. Isolated and purified antibody immunochemically
2 reactive with a peptide antigen according to claim 2.

1 11. The antibody of claim 10 which is monoclonal.

1 12. Isolated and purified antibody immunochemically
2 reactive with a peptide antigen according to claim 6.

1 13. The antibody of claim 12 which is monoclonal.

1 14. A monoclonal antibody selected from the group
2 consisting of 1D11.G10 produced by the hybridoma ATCC accession
3 number _____; 3D4.E2 produced by the hybridoma ATCC accession
4 number _____; and 1A3.B4 produced by the hybridoma ATCC
5 accession number _____.

1 15. An assay for the selective identification of *P.*
2 *vivax* malarial infection in a susceptible mammal which comprises
3 the steps of:

4 (a) contacting a biological sample known to come
5 in contact with erythrocytes of said mammal with an antibody that
6 binds a *P. vivax* specific epitope of a species-specific secreted
7 blood-stage protein from *P. vivax* to form an antibody-antigen
8 complex;

9 (b) detecting said complex which indicates
10 whether said mammal is infected by *P. vivax*.

1 16. The assay of claim 14 wherein said antibody is
2 conjugated to a reporter substance.

1 17. The assay of claim 16, wherein said reporter
2 substance is selected from the group consisting of enzymatic

3 conjugates, dyes, radioisotopes, fluorescence, and particulate
4 labels.

5 18. The reporter substance of claim 17, wherein the
6 particulate label is selected from the group consisting of
7 liposome, latex, polystyrene, colloid metal and colloid nonmetal
8 labels.

1 19. The assay of claim 14 wherein said contacting step
2 is conducted in the co-presence of a known amount of labelled
3 peptide antigen comprising all or part of the sequence of said
4 secreted protein, said labelled antigen (i) also being recognized
5 by said antibody and (ii) competing with said secreted protein
6 for binding to said antibody; and said detecting step comprises
7 detecting said labelled antigen bound to said antibody or
8 detecting unbound labelled antigen.

1 20. The assay of claim 14 wherein said protein is
2 PvESP-1 or PvESP-2.

1 21. The assay of claim 14 wherein said protein and
2 said antigen are both PvESP-1 or are both PvESP-2.

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